

## 1. Android 1.0: Alpha (API 1)

The initial version of Android was released on September 23, 2008, known as Android 1.0. There were many loopholes in this alpha version including the necessity of physical keyboards or hardware buttons. It has an android API (application program interface) level 1. API level is the integer value that identifies the API framework revision provided by the version of the android platform. API framework includes the core set of classes, packages, XML elements, intents, and permissions that the application can request.

### Features

- Google Maps, browser, calendar
- Camera and scroll down the notification bar
- Gmail integration, Contacts, and Google Synchronization.
- Wireless supports – Wi-Fi and Bluetooth.

## 2. Android 1.1: Beta (API 2)

Android Beta version was released on February 9, 2009, with API changes and resolved issues encountered in 1.0. This android version was released for T-Mobile G1 devices only.

### Features

- Display details and reviews for locations
- Add Save attachment in the message
- Provide detailed information by clicking on the business

## 3. Android 1.5: Cupcake (API 3)

It was released on April 30, 2009, with the first official public code name and amazing features as compared to the old versions. Moreover, it also brought the third-party app widgets that was the most distinguishing and valuable feature.

### Features

- on-screen keyboard and search function
- Uploading videos and images
- Copy and paste facility and video recordings
- Support for MPEG4 and 3GP formats

## 4. Android 1.6: Donut (API 4)

The android 1.6 version was released on September 15, 2009, was many valuable changes including the ability to operate on a number of different screen resolutions and sizes. Donut provides the voice and text entry search including bookmark history, and the ability to select multiple images for deletion.

### Features

- Power Control widget for handling Wi-Fi, Bluetooth, GPS, etc.
- Gallery and Camera quick toggling features
- WVGA screen resolution speed
- Technology support for CDMA/EVDO, 802.1x, VPNs, and a text-to-speech engine
- Speed improvements for camera and searching applications
- Quick Search Box

## 5. Android 2.0: Eclair (API 5)

Éclair 2.0 – 2.1 was released on December 3, 2009, with multiple account synchronizations of email and contacts. Moreover, there are many new features were added including flash support, scene mode, white

balance, color effect, macro focus and digital zoom. Android 2.1 version brought bug fixes and stability improvements to the Éclair. The most valuable feature was real-time traffic information and voice-guided turn by turn navigation.

#### Features

- Update UI
- Support Bluetooth 2.1
- Improve Google map
- Minor API Changes
- Support Live and animated Wallpapers
- Ability to add contact's photo and select to call, message or email

### 6. Android 2.2: Froyo (API 8)

Android version 2.2 was released on May 20, 2010, with speed, memory, and performance improvements. It was introduced with the enhanced Bluetooth functionality and compatibility with docks, portable WiFi hotspot for sharing the 3G connection. Google Nexus One was the first smartphone having an android 2.2 android version. Android version list provides you the complete historical knowledge of android operating system updates and improvements.

#### Features

- Support for Animated GIF and multiple keyboard languages
- Speed and performance improvements
- Upload file support in the browser
- Support numeric & alphanumeric passwords to enhance security
- Increased Compatibility with car kits and headsets
- Wi-Fi Support Hotspot functionality

### 7. Android 2.3: Gingerbread (API 9)

Gingerbread exists in the 7<sup>th</sup> position in the android version list that was released on December 6, 2010. The main enhanced feature was the introduction of gaming API with improved graphical intense ga ming, so it has boomed the mobile games.

#### Features

- Improve Copy and Paste Facility
- Updated UI design
- Support for VP8 and WebM video format
- Video calling and Social Networking Supports
- Easy to use a keyboard with faster and intuitive typing

### 8. Android 3.0: Honeycomb (API 11)

Honeycomb from the android version list was released in 2011 that was tablet -only release to launch the Motorola Xoom. It was also suitable for those mobiles having a larger view than current smartphones.

#### Features

- Gmail, contacts, camera and gallery improvements
- Support for passwords with complex characters
- encrypted storage and updated 3D UI
- Supports multiprocessors and recent apps for easy visual multitasking
- Media Sync from SD Card
- Action bar for application control
- System bar for global status and notifications

- Google eBooks and Talk Video Chat
- Support Adobe Flash in Browser
- More sensor support
- High-performance Wi-Fi Connections and Lock
- Chinese handwriting and redesigned keyboard

## 9. Android 4.0: Ice Cream Sandwich (API 14)

The ice cream sandwich was released on October 19, 2011, with many enhanced features to enter the era of modern design. The snapshot was introduced to take screenshots by holding the volume and power button. Android version list has a variety of android operating systems but as compared to all older versions, ice cream sandwich widgets are more robust and resizable.

### Features

- Spelling check feature
- Wi-Fi direct
- Photo Decor facility and on-screen buttons
- Unlocking with face-fixing.
- Card-like appearance for app-switching
- Improved video recording with high resolution
- Better Camera performance
- Ability to open up to 16 tabs in the web browser

## 10. Android 4.1: Jelly Bean (API 16)

The better version of android known as Jelly Bean was released in June 2012 with Google Digital Assistant technology accessible from the home screen. The spectacular predictive intelligence utility provides expandable and interactive notifications. Moreover, users can enjoy the multi-user support into play and many other valuable features.

### Features

- Voice search and typing
- Panorama
- Project Butter
- Expandable notifications
- Daydream as a screensaver
- Power control
- Support USB audio
- Improved camera app
- Security improvements
- New gestures and accessibility features
- Multiple user accounts (Only for tablets)
- 4k resolution support
- Supporting Bluetooth with low energy
- Bi-directional text and different language support
- Set or adjust the volume of incoming calls and show a message alert
- Google displays relevant content based on your search history
- Native emoji support

## 11. Android 4.4: KitKat (API 19)

Android version 4.4 was released on September 3, 2013, with more focused on better user experience. KitKat is optimized to run at a larger range of old versions from the android version list. The smartphone must have a minimum of 512 MB of RAM.

### Features

- Screen Recording
- Contact Prioritization
- GPS Support
- Smarter Caller ID
- Offline music support
- UI updates for alarm and google map navigations
- Cartoonish ideograms and emojis to the Google keyboard
- KitKat has 'OK Google' feature that allows access to Google to the users without touching your smartphones.

## 12. Android 5.0: Lollipop (API 21)

Lollipop or android version 5.0 was released on November 12, 2014, with a redesigned user interface and built with "material design". It gives a new and modern look extended across all of android, applications, and google products. Lollipop from the android version list comes with many amazing features including Support for better notification management.

### Features

- Support ART
- Better device protection
- Notifications can be flicked away from the lock screen
- Better and improved UI
- Built-in battery saver feature
- New material design
- Revamped navigation bar
- Support for Multiple sim cards
- High definition of voice call.

## 13. Android 6.0: Marshmallow (API 23)

In the year 2015, Google used "Macadamia Nut Cookie" to describe android version 6.0 before the Marshmallow official announcement.

### Features

- Support for Fingerprint readers
- Type C USB support
- Multi-window experience
- 'Sleep Mode' for saving battery life
- Clear permission system
- Custom google tabs and improved Copy-pasting

## 14. Android 7.0: Nougat (API 24)

The android 7.0 was released in 2016 with a native split-screen mode, data saver functionality, and a "bundled-by-app" system to organize notifications.

### Features

- Provide multitasking and split-screen mode
- Storage manager enhancements
- Quick setting toggles
- Display touch enhancements
- Better setting application
- Inline reply to messages and notifications without opening applications

## 15. Android 8.0: Oreo (API 26)

Oreo was released in the year 2017 having native picture-in-picture mode, notification snoozing options and better control over how applications can alert you by notifications.

### Features

- Password autofill
- Auto-enable Wi-Fi
- Downloadable fonts
- Multi-display support
- Support Picture-in-Picture
- Notification channels and snooze notification
- Google Play support and new emoji styling
- Adaptive icons and smart text selection

### 16. Android 9: Pie (API 28)

The pie was publicly released on August 6, 2018, with plenty of amazing features according to the users' interests and requirements. According to a report, Pie is the most widely used operating system in the android version list.

### Features

- Sound amplifier with select to speak options
- Artificial intelligence (AI) compatibility
- Adaptive Battery and Brightness with background restrictions
- Multi-camera support with the external camera compatibility
- New Gesture Navigation and App Actions
- New Screenshot Shortcut key and accessibility menu
- Easier Screen Rotation and edge to edge screens support
- Volume and Sound enhancements
- Selectable Dark Mode
- HDR, HD audio, multiple Bluetooth connections
- Slices and long press to overview selection
- Improved Security features for extra protection
- Digital Wellbeing with app timers, dashboard and do not disturb options
- Android backups and privacy enhancements
- More Notification Information and easier text selection

### 17. Android 10: Android Q (API 29)

Android version 10 is officially released on September 3, 2019, with enhanced features and functionalities with higher API levels.

### Features

- Support for foldable smartphones with flexible displays
- Dark mode for eyes comfortability
- Navigation control over gesture quicker and intuitive ever
- Sound amplifier with more clear sound
- Smart reply suggestions for all messaging apps
- Live caption for media playing on a smartphone
- Undo app removal
- Better notification control with many options

## 18. Android 11: (API 30)

Android developers are continually working to provide more advanced applications as per the user requirements. Most of the developers are searching Android Developer vs Web Developer to choose a trending field.

The following are the new features that you will experience in the new android 11 that is going to release and will be the latest version in the android version list.

- Native screen recording
- Muting notifications during video
- Increase touch sensitivity
- Notification History
- Auto revoke app permissions

Following are the Revamped or updated features:

- Revamped menu and screenshot shortcuts
- New text selection mode from one app to another
- Undoing recently cleared applications
- Airplane mode doesn't kill Bluetooth anymore
- Face Unlock will require you to open your eyes in pixel 4
- App pinning in the share menu
- Improved notification conversation shades
- Conversation bubbles and context-aware dark mode
- Improved one-time permissions

Source: <https://www.temok.com/blog/android-version-list/>